

# Recovery Plan Action Status

Plan Name: Pale Lilliput Pearly Mussel

Plan Status: Final

Plan Date: 22-Aug-84

Lead Agency: USFWS

Lead Office: Alabama Ecological Services Field Office

(229)  
(441-5181)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	1	1.1	Continue to utilize existing legislation and regulations to protect species and habitat	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Law Enforcement Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority, Tennessee Wildlife Resources Agency, USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Management, Management: General, Management: Habitat Maintenance and Manipulation, Management: Land Use, Management: Planning, Other: Administration, Other: Law Enforcement, Other: Regulations, Research: Demographic Studies, Research: Environmental Contaminants, Research: General, Research: Habitat Requirements, Research: Habitat Status, Research: Management Techniques, Research: Population Surveys	Contract, Graduate Student, Internal Administrative, Internal Field Technical Assistance, Internal Species Expert	*1. See general categories for Implementation Schedules. *2. Other agencies' responsibility would be of a cooperative nature or projects funded under a contract or grant program. In some cases contracts could be let to universities or private enterprises. *3. Note: Task costs have not been estimated for this plan. This species' present/historic distribution coincides with that of other listed species. Thus, a task aimed at this species will benefit others. Rather than attempting to apportion the costs to each species, recovery tasks will be estimated at a later date when the plans are combined on a watershed basis for implementation

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	3	1.2.1	Determine species' present distribution and status	Ongoing Current	Prior to FY 1995		Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Research: Demographic Studies, Research: Genetics, Research: Habitat Requirements, Research: Habitat Status, Research: Population Surveys, Research: Taxonomic Studies	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	2	1.2.2	Characterize habitat and determine essential elements	Ongoing Current	Prior to FY 1995		Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Research: Demographic Studies, Research: Habitat Requirements, Research: Habitat Status, Research: Other Information	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	2	1.2.3-1.2.4	Determine the extent of preferred habitat and present information in a manner which identifies areas in need of special attention	Ongoing Current	Prior to FY 1995		Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Research: General, Research: Habitat Requirements, Research: Habitat Status, Research: Management Techniques, Research: Other Information	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	1	1.3.1-1.3.2	Determine present and foreseeable threats to species	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Research: Demographic Studies, Research: Environmental Contaminants, Research: Habitat Requirements, Research: Habitat Status, Research: Other Information, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	2	1.3.3	Determine measures needed to minimize threats and implement where needed to meet recovery	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program, Tennessee and Alabama Nature Conservancy	Management, Management: Habitat Maintenance and Manipulation, Management: Land Use, Management: Planning, Other: Information and Education, Other: Regulations, Research: Environmental Contaminants, Research: Habitat Requirements, Research: Management Techniques	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Pale lilliput (pearl mussel) (Toxolasma cylindrellus)	2	1.4.1-1.4.4	Solicit help in protecting species and essential habitat	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority, Tennessee Wildlife Resources Agency, USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program, Tennessee and Alabama Nature Conservancy	Management: Habitat Maintenance and Manipulation, Management: Land Use, Management: Planning, Other: Administration, Other: Information and Education, Other: Law Enforcement, Research: Habitat Requirements, Research: Habitat Status, Research: Management Techniques	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pale lilliput (pearl mussel) (Toxolasma cylindrellus)	2	1.4.5	Develop and utilize information and education program (slide/tape shows, brochures, etc) for local distribution	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority, Tennessee Wildlife Resources Agency, USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program, Tennessee and Alabama Nature Conservancy	Other: Information and Education	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	2	1.5	Investigate the use of Scenic River Status, mussel sanctuaries, land acquisitions, and/or other means to protect the species.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program, Tennessee and Alabama Nature Conservancy	Acquisition, Acquisition: Easement, Acquisition: Lease, Acquisition: Management Agreement, Other: Administration, Other: Information and Education, Other: Regulations	Internal Administrative, Internal Field Assistance, Internal Technical Assistance	
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	3	2.1-2.2	Survey rivers within species' historic range to determine availability of suitable transplant sites	Ongoing Current	Prior to FY 1995		Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Research: Habitat Requirements, Research: Habitat Status, Research: Population Surveys, Research: Reintroduction	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Task 2.1-2.3 may not be required if other populations are found in task 1.2.1
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	3	2.3	Determine best method of establishing new populations	Not Started			Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Management: Reintroduction, Research: Propagation, Research: Reintroduction	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	3	2.4	Reestablish populations within historic range as needed to meet recovery.	Not Started			Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Management: Propagation, Management: Reintroduction, Research: Propagation, Research: Reintroduction	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	3	2.5	Implement same protective measures for these reestablished populations as for known populations	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program, Tennessee and Alabama Nature Conservancy	Work type not yet selected	Labor type not yet selected	
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	2	3	Conduct life history studies on a need-to-know basis	Ongoing Current	Prior to FY 1995		Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Research: Demographic Studies, Research: Genetics, Research: Habitat Requirements, Research: Habitat Status, Research: Population Surveys, Research: Propagation, Research: Taxonomic Studies	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	3	4	Determine the number of individuals required to maintain a viable population	Not Started			Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Research: Demographic Studies, Research: Habitat Requirements, Research: Management Techniques, Research: Population Surveys, Research: Propagation, Research: Reintroduction	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	These studies will be developed and carried out where there is a specific need for data necessary to reach recovery
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	2	5	Investigate the need for habitat improvement and implementation only where needed to meet recovery objective	Ongoing Current	Prior to FY 1995		Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Management: Habitat Maintenance and Manipulation, Management: Planning, Management: Reintroduction, Research: Demographic Studies, Research: Habitat Requirements, Research: Habitat Status, Research: Management Techniques, Research: Population Surveys, Research: Reintroduction	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	2	6	Develop and implement a monitoring program	Ongoing Current	Prior to FY 1995		Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program	Research: Habitat Status, Research: Other Information, Research: Population Surveys	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Pale lilliput (pearlymussel) (Toxolasma cylindrellus)	2	7	Annual assessment of recovery program and modify where needed	Not Started			Alabama Department of Conservation and Natural Resources, Tennessee Valley Authority , Tennessee Wildlife Resources Agency , USFWS Regional Office 4 - Atlanta, Tennessee Heritage Program, U.S. Fish and Wildlife Service - Endangered Species Program, Tennessee and Alabama Nature Conservancy	Management: Planning	Internal Administrative, Internal Technical Assistance	